BOOK

| ns | | Contents | Reference to last Measurement |
|---|---|---|---|
| eadth | Depth | | |
| 5 | 6 | 7 | 8 |
| | | | |

M. A. R. 57 (Rule 116)

Measurement Book

No. B

496406

Premeasurements

Serial No. 1st and final bill:-

Name of Work Improvements to roads and drains to road From To opp to Elurnandamma temple in

Name of Contractor of nature of Agency tempapura gramatana in ward no.07, bylaraayanapura

Date of commencement of work Sri. N. Lokanath reddy.

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Est cost:- | 25.00 lakhs. | | | | | |
| | Job code:- | 007-18-000075 | | | | | |
| | Head of account:- | P1771. | | | | | |
| | A.S. No:- | AS/CE(YNK)/320/18-19; dt: 08.02.18 | | | | | |
| | T.S. No:- | TS/CE(YNK)/08/18-19; dt: 26.07.18 | | | | | |
| | Agr no:- | No. EE/BTP/Agr/163/18-19; dt: 05.11.18 | | | | | |
| | Work order amount:- | N. Lokanath reddy. ; 217 2107.07 | | | | | |
| | Work order no:- | No. BBMP/EE/BTP/WO/163/18-19; | | | | | 05.11.18 |

# MEASUREMENT BOOK

MAIN-BILL:-

| Date 1 | Full description, etc, of work 2 | Dimensions: Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | Item No. 01:- Earthwork excavation by manual means in ordinary soil, involving an average horizontal throw upto 2m and an average lift upto 1.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking clods, complete as per specification., | | | | | | |
| | Qty vide page no. 496408 → 507.15 cum | | | | | | 38716 |
| | At the rate of Rs. 76.34 → | | | | | | ~~38720.90~~ |
| | Item No. 02:- Providing and laying in position plain cement concrete of nominal mix 1:4:8 using 40mm and down size graded granite metal machine mixed, concrete laid in layers, not exceeding 15 cms., | | | | | | |

Serial No. .....

Name of Work .....

Name of Contractor of nature of Agency

Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 |
|---|---|
| | Qty vide pag |
| | At the rate |
| | Item No. 03:- Providing lo |
| | to wet-mix-macadam |
| | water at OMC in mo |
| | to site, laying in |
| | Qty vide pa |
| | At the rate |

OK

| Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|
| | | means in ordinary soil., |
| | | upto 2m and an average |
| | | d and sides neatly |
| | | ed neatly after breating |
| | | |
| | | .15 cum 38716 |
| | | ~~38720.90~~ |
| | | |
| | | n cement concrete of |
| | | on size graded granite |
| | | layers, not exceeding |

**M. A. R. 57 (Rule 116)**
Measurement Book

**No. B**

496412

Serial No. .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions: Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | Qty vide page no. 496410 → 184.65 cum | | | | | | |
| | At the rate of Rs. 4531.15 → | | | | | | 836676.85 |
| Item No. 03:- | Providing laying, spreading and compacting graded fine aggregate to wet-mix-macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub base / base course., | | | | | | |
| | Qty vide page no. 496408 → 79.0 cum | | | | | | |
| | At the rate of Rs. 1552.90 → | | | | | | 122679.10 |

# MEASUREMENT BOOK

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Item No.04:- Providing TMT steel reinforcement for RCC work including, straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design., | | | | | | |
| | Qty vide page no. 496410 → | | 1.13 tonne. | | | | |
| | At the rate of Rs. 56424.99 → | | | | | | 63760.20 |
| | Item No.05:- Providing and removing centering, shuttering, strutting, propping etc., for columns, pillars., | | | | | | |
| | Qty vide page no. 496411 → | | 168 sqm | | | | |
| | At the rate of Rs 340.74 → | | | | | | 57244.30 |

Serial No. .....
Name of Work .....
Name of Contractor of nature of A
Date of commencement of work .

| Date | Full description, etc, of |
|---|---|
| 1 | 2 |
| | Item No.06:- Providin design mix M20 w granite metal c 0.45g cem with 2008 machine m RCC-drain: Botto |
| | Sidewall: |

OK

| Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|
| r RCC work including, , placing in position, red, tying with binding embers wherever | | |
| tonne. | | 63760.20 |
| shuttering, strutting, | | |
| sqm | | 57244.30 |

**M. A. R. 57 (Rule 116)**
Measurement Book

**No. B**

496413

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions: Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | Item No. 06:- Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320 kgs with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.45 g cum with superplastizers @ 3 lts conforming to IS aggregates @ 2008 machine mixed, concrete laid in layers not exceeding 15cm th., | | | | | | |
| | RCC-drain: Bottom 0-30 | 01 | 30.0 | 0.60 | 0.15 | = 2.70 | |
| | 30-60 | 01 | 30.0 | 0.60 | 0.15 | = 2.70 | |
| | 60-80 | 01 | 20.0 | 0.60 | 0.15 | = 1.80 | |
| | Sidewall: | 1x2=2 | 30.0 | 0.15 | 0.50 | = 4.50 | |
| | | 1x2=2 | 30.0 | 0.15 | 0.50 | = 4.50 | |

16.20

# MEASUREMENT BOOK

| Date 1 | Full description, etc, of work 2 | Dimensions: Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | | 1x2=2 | 20.0 | 0.15 | 0.60 = | 3.60 | |
| | | | | | | 19.80 cum | |
| | At the rate of Rs. 5596.22 → | | | | | | 110805.15 |
| | Apply N.D AE(W-I) | | | | | | |
| Item No 11:- | Providing and fixing 10cms thick precast RCC covering slab using reinforced cement concrete M20 mix with stone aggregate 20mm and downsize including centering, shuttering reinforcement and bar bending down size including ~~cent.~~, not exceeding 15cm th well compacted cost of all materials., | | | | | | |
| | covering slab on drain: | | | | | | |
| | 0-30 | 55 | 0.60 | 0.75 = | 24.75 | | |
| | 30-60 | 55 | 0.60 | 0.75 = | 24.75 | | |
| | | | | | | 49.50. | |

Serial No. .....
Name of Work .....
Name of Contractor of nature of Agency ....
Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 |
|---|---|
| | 60-80 |
| | Elumandamma temple |
| | Qty ltd to. 8 |
| | At the rate |
| Item No 08:- | Providing a |
| | masonry in foundati |
| | in courses not less |

| | Contents 7 | Reference to last Measurement 8 |
|---|---|---|
| | 16.20 | |
| = | 3.60 | |
| | 19.80 cum | |
| | | 110805.15 |
| l RCC covering slab | | |
| with stone aggregate | | |
| shuttering reinforcement | | |
| rd., not exceeding 15cm | | |
| | 15.75 | |
| | 34.75 | |
| | 49.50. | |

**M. A. R. 57 (Rule 116)**
Measurement Book

**No. B** 496414

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions: Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | 60-80 | 01 | 35 M | 0.60 | 0.75 | = 15.75 | |
| | Elumandamma temple road: | | | | | | |
| | | 01 | 20 M | 0.60 | 0.90 | = 10.80 | |
| | | 01 | 25 M | 0.60 | 0.90 | = 13.50 | |
| | | | | | | 89.55 sqm | |
| | Qty ltd to 88.50 sqm | | | | | | |
| | At the rate of Rs. 1844.43 → | | | | | | 163232.00 |

Item No.08:- Providing and constructing granite/trap/basalt size stone masonry in foundation with cement mortar 1:6 stone hammered dressed in courses not less than 20cms high, bond stones at 1.00 m apart in each

# MEASUREMENT BOOK

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | course including cost of materials, labour, curing etc., complete., | 01x2=2 | 5.0 | 0.45 | 0.75 | = 3.38 cum | |
| | At the rate of Rs. 3898.08 → | | | | | | 13175.50 |
| Item No. 09:- | Providing ruled pointing of course stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials., | | | | | | |
| | Pointing to SSM:- | 01x2=2 | 5.0 | - | 0.75 | = 7.50 sqm | |
| | At the rate of Rs. 32.58 → | | | | | | 244.35 |

Serial No. .....
Name of Work .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

| Date | Full description, etc, of work |
|---|---|
| 1 | 2 |
| Item No. 10.- | Providing and concrete blocks of size than 1800kg/m³ and h 4.00 N/mm². , |
| | Raising side wall of old drain opp to Elum |
| | At the rate |

OK

| Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|
| r, curing etc., complete., | | |
| 0.75 = | 3.38 cum | |
| | | 13175.50 |
| stone masonry with | | |
| king joints to depth of 20mm | | |
| ) | | |
| 0.75 = | 7.50 sqm | |
| | | 244.35 |

M. A. R. 57 (Rule 116)
Measurement Book

No. B

496415

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions: Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| Item No. 10.- | Providing and constructing non load bearing wall with solid concrete blocks of size 400 x 200 x 200 mm having block density not less than 1800 kg/m³ and having a minimum average compressive strength 4.00 N/mm². | | | | | | |
| | Raising side wall of old drain opp to Elumandamma temple., | 1x2 = 2 | 40.0 | 0.20 | - | = 16.0 sqm | |
| | At the rate of Rs. | | 872.34 → | | | | 13957.45 |

# MEASUREMENT BOOK

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Item No. 12:- | Providing and fixing 20cm th. precast RCC covering slab using reinforced cement concrete M20 with stone aggregate 20mm and down size including centering shuttering reinforcement and bar bending machine mixed concrete laid in layers not exceeding 15cm th., | 09 | 1.80 | 0.60 | - | = 9.72 sqm | |
| | At the rate of Rs. | 4488.99 → | | | | | 43632.98 |
| Item No. 14:- | Providing and fixing MS grating | 14 | - | - | - | = 14 nos | |
| | At the rate of Rs. | 82.85 → | | | Limit: 10.00 | | 829 ~~1159.90~~ |

Serial No. .....
Name of Work .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

| Date | Full description, etc, of work |
|---|---|
| 1 | 2 |
| Item. No. 07:- | Providing an 1:2:4 with cement e 2 metal coarse aggregate machine mixed concrete Culvert bottom: Culvert sidewall coping Ramps for RCC drain 0-30 30-60 60-80 |

OOK

| | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|
| cast RCC covering slab | | | |
| with stone aggregate 20mm | | | |
| ttering reinforcement and | | | |
| laid in layers not exceeding | | | |
| | - | = 9.72 sqm | |
| → | | | 43632.98 |
| | - | = 14 nos | |
| | Limit: 10.00 | | 829 |
| | | | 459.90 |

M. A. R. 57 (Rule 116)
Measurement Book

No. B

496416

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions: Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| Item. No. 07:- | Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240 kgs with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregate @ 0.459 cum machine mixed concrete laid in layers not exceeding 15cm, th., | | | | | | |
| | Culvert bottom: | 01 | 5.0 | 1.80 | 0.15 | = 1.35 | |
| | Culvert sidewall coping | 1x2=2 | 5.0 | 0.45 | 0.12 | = 0.54 | |
| | Ramps for RCC drain | | | | | | |
| | 0-30 | 01 | 25.0 | 0.30 | 0.10 | = 0.75 | |
| | 30-60 | 01 | 25.0 | 0.30 | 0.10 | = 0.75 | |
| | 60-80 | 01 | 15.0 | 0.30 | 0.10 | = 0.45 | |

3.84.

# MEASUREMENT BOOK

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | coping for raising sidewall of old drain: | 1x2=2 | 40.0 | 0.20 | 0.10 = | 1.60 | |
| | | | | | | 5.44 cum | |
| | Qty ltd to 5.35 cum | | | | | | |
| | At the rate of Rs. 5065.56 → | | | | | | 27100.75 |
| Item No.13: | Cement concrete pavement: | | | | | | |
| | Road opp to Elumandamma temple: | | | | | | |
| | 0-30 | 01 | 30.0 | 5.0 | 0.10 | = 15.0 | |
| | 30-60 | 01 | 30.0 | 5.0 | 0.10 | = 15.0 | |
| | 60-90 | 01 | 30.0 | 5.0 | 0.10 | = 15.0 | |
| | 90-100 | 01 | 10.0 | 5.0 | 0.10 | = 5.0 | |
| | | | | | | 50.0 cum | |

C&FC. 5/12

Serial No. .....
Name of Work .....
Name of Contractor of nature of Age
Date of commencement of work .....

| Date | Full description, etc, of wo |
|---|---|
| 1 | 2 |
| | Road joining ku |
| | 0- |
| | 30- |
| | 60- |
| | 90- |
| | 120- |
| Item No.15: | Qty vide i |

C&FC 5/12

5/12/18

Assistant Executive Engin
Kodigehalli Sub Divisio
Yelahanka Zone, B.B.M.
Bangalore

OK

| Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|
| 0.10 = | 1.60 | |
| | 5.44 cum | |
| | | 27100.75 |
| 0.10 = | 15.0 | |
| 0.10 = | 15.0 | |
| 0.10 = | 15.0 | |
| 0.10 = | 5.0 | |
| | 50.0 cum | |

**M. A. R. 57 (Rule 116)**
Measurement Book

**No. B** 496417

Serial No. .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions: Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | Road joining Kurempu main road: | | | | | | |
| | 0-30 | 01 | 30.0 | 5.0 | = 15.0 | | |
| | 30-60 | 01 | 30.0 | 5.0 | = 15.0 | | |
| | 60-90 | 01 | 30.0 | 5.0 | = 15.0 | | |
| | 90-120 | 01 | 30.0 | 5.0 | = 15.0 | | |
| | 120-130 | 01 | 10.0 | 5.0 | = 5.0 | | |
| | | | | | 65.0 cum | | |
| | Total = | | | | 115.0 cum | | |
| | At the rate of Rs. 5461.23 → | | | | | | 628041.45 |
| | Item No.15:- Widening and charges:- | | | | | | 47164.95 |
| | Qty vide item No.01 → | | | | 507.15 | | |
| | At the rate of Rs. 93 → | | | | | | |

Assistant Executive Engineer.
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore

C&FC
5/12
5/12/18

N.D
DE(W)
4/12/18

Rs: 21,67,259 - ~~21675 90.88~~

# MEASUREMENT BOOK

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Certificate: | | | | | | |
| | 1). Certified that the beneficiary has completed the ~~bolg~~ work. satisfactorily. | | | | | | |
| | 2). Certified that above quantities are not taken under any other grants. | | | | | | |
| | Arlpll.N.D<br>AE(W) | | | | | | |

5/11/18

Assistant Executive Engineer,
Kodigehalli Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Serial No. .....
Name of Work .....
Name of Contractor of nature of Agency
Date of commencement of work .....

| Date | Full description, etc, of work |
|---|---|
| 1 | 2 |
| | towards Ayyappa-temple |
| | Arlpll.N.D<br>AE(W) |

OK

| Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|
| pleted the ~~bldg~~ work. | | |
| not taken under any | | |
| 5/11/18 utive Engineer, Division, B.B.M.P., galore. | | |

**M. A. R. 57 (Rule 116)**
Measurement Book

**No. B**

496418

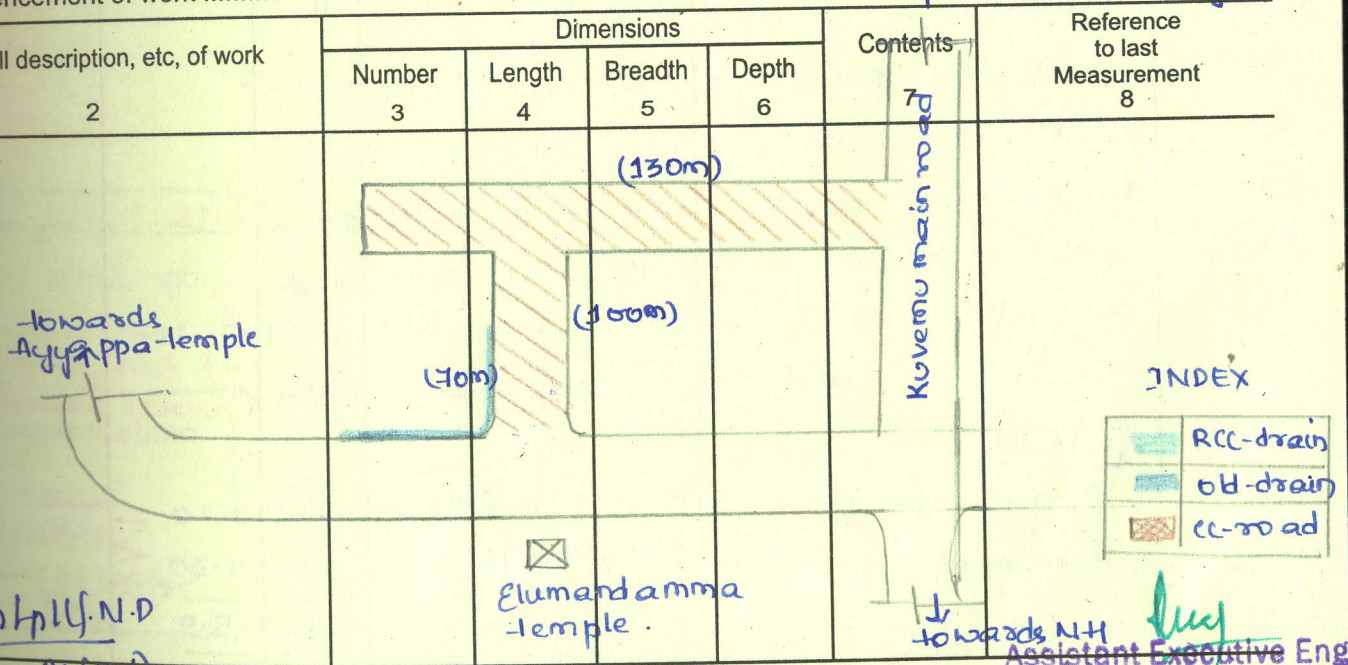
Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions: Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | | | | | | | |




PLAN

AE(W)

Assistant Executive Eng
Madiwala Sub Divi

# MEASUREMENT BOOK

Royalty charges:

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | coarse | fine | | | |
| Sl. no. | Details | coeff | Qty | coeff | Qty. | | |
| 02 | 40mm: 184.65 cum | 0.96 | 177.26 | 0.48 | 88.63 | | |
| 03 | WMM: 79.00 cum. | 1.0 | 79.0 | - | - | | |
| 06 | 20mm: 19.80 cum | 0.85 | 16.83 | 0.416 | 8.23 | | |
| 07 | 20mm: 5.35 cum | 0.90 | 4.81 | 0.45 | 0.40 | | |
| 13. | CC: 115.0 cum | 0.85 | 97.75 | 0.416 | 47.84 | | |
| | Total = | | 375.65 | | 145.10 | | |
| | Abstract:- | | | | | | |
| | 1) coarse aggregate: 375.65 x 108/cum = | | | | 40570.20 | | |
| | 2) fine-aggregate: 145.10 x 103/cum = | | | | 14945.30 | | |
| | | | | | 55515.5 | | |

BOOK

| dth | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|
| ine | | | |
| ff | Qty. | | |
| 8 | 88.63 | | |
| 6 | 8.23 | | |
| 5 | 0.40 | | |
| 6 | 47.84 | | |
| | 145.10 | | |
| = | 40570.20 | | |
| = | 14945.30 | | |
| | 55515.5 | | |

**M. A. R. 57 (Rule 116)**
Measurement Book

**No. B** 496419

Se .....
Na ..... From..... To.....
Na or of nature of Agency .....
Da ement of work .....

| D | escription, etc, of work 2 | Dimensions: Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | ಬಿಲ್ಲು ಮೊಬಲಗು ರೂ. 21.67,259-00 | | | | | | |
| | ಗಳ ಮಾಡು ಮಾಡಿದೆ : ಇದರಲ್ಲಿ ರೂ. 139730-00 | | | | | | |
| | ಮಾಂಯಾಗಿ ಮಾಡಿಕೊಂಡು ಉಳಿದ ಮೊಬಲಗು 20,27,529-00 | | | | | | |
| | Rs. Twenty lakh twenty seven thousand five hundred twenty nine only. | | | | | | |
| | ಮುಖಾಂತರ ನೀಡಲಾಗಿದೆ | | | | | | |
| | ಲೆಕ್ಕಾಧೀಕ್ಷಕರು | | | | | | |
| | ಬಾ. ಮಾ. ಅ. | | | | | | |
| | ಬ್ಯಾಟರಾಯನಪುರ ವಿ | | | | | | |
| | ಬೃ. ಬೆ. ಮಾ. ಸಾ | | | | | | |

Total Rs: 21,67,259-00
IT - 21673-00
CCC - 21673-00
CBT - 2167-00
LR - 55515-00
CGST - 19351-00
SGST - 19351-00

Adjn. 139730-00
Cheque 20,27,529-00